

*by*



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New York, NY 10166-0153

EXAMINER
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WOODS, ERIC V

ART UNIT	PAPER NUMBER
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2672

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Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/679,541	<b>Applicant(s)</b> CHIN ET AL.	
	<b>Examiner</b> Eric V. Woods	<b>Art Unit</b> 2672	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 20 June 2005.
- 2a) ☒ This action is FINAL.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 8-11 and 29-42 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 8-11 and 29-42 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Specification***

Examiner accepts the changes in the Title and Abstract.

### ***Response to Arguments***

Applicant's arguments, see Remarks page 1, filed 20 June 2005, with respect to various objections to the specification have been fully considered and are persuasive.

The objections to the specification have been withdrawn in view of applicant's amendments.

Applicant's arguments with respect to the rejection of claim 8 under 35 U.S.C. 112, second paragraph, are found to be persuasive, and as such that rejection is withdrawn. The citation of *In re Miller* is inapposite because examiner was not – per se or otherwise – objecting to the breadth of the claim. Examiner was asserting that applicant was using the term 'conventional' as a redefinition, and applicant disclaimed that usage.

Applicant's arguments, see Pages 2-7, filed 20 June 2005, with respect to the rejection(s) of claim(s) 7-11 and 32-41 under 35 U.S.C. 103(a) have been fully considered and are persuasive in view of applicant's amendments. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of other combinations of references as set forth below.

It is noted by examiner that applicant admits at least implicitly on page 3 of Remarks that the applicant's invention is directed to automatically performing the

placement of the views in the second window or layout. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the term "automatically arranging the layout") are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). In any case, applicant's claim is limited (by its very wording) to "automatically reposition the views" **with respect to each other**.

It is further noted by examiner that it is well established that it is not invention to automate an activity previously done manually. A close reading of the relevant case law, namely *In re Venner*, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958), shows that simply because a computer (or broadly, "automated means", which in the case of *Venner* happened to be a timer) is used to perform a step previously performed by a human being (in *Venner*, the step was determining when to release the relevant engine part from the mold) does not make it patentable or non-obvious (see MPEP 2106 and specifically 2144.04, section (III)). Further, the obviousness rejection in that case was upheld at least partially because the user of the system still had to choose the point at which the timer was initiated, so even though automatic means were used to release the mold, the user still had to initiate the process. Therefore, on both grounds – both broadly that automatically positioning views as applicant recites is merely automating an activity previously manually done by a user is *per se* only

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automating a previously manual activity, and that specifically in respect to *Venner*, that the present step is still **initiated** by the user at a time of the user's choosing, and the user chooses which views will be repositioned, and (although the claim does not specifically say so) the user (as is well known in the CAD art) can / could choose the transformations applied to the views in question. As such, the activity is still manual in nature, with only a small step converted to an automatic action by a computer, even though a user operating a general-purpose computer specifically programmed to operate in a CAD system mode per se performs the method.

Finally, applicant's arguments with respect to "obviousness" and Official Notice are inapposite. Examiner did **not** take Official Notice, and there is no indication within the previous Office Action that such Notice had been taken. Therefore, all of the cited material and arguments to that respect are moot.

Applicant further states on page 3 of the Remarks that such amendments are made to further clarify the subject matter and to clarify other points. That statement constitutes an admission that such amendments were made pursuant to examiner's requirements or rejections, e.g. made to satisfy requirements or overcome rejections under 35 U.S.C. 101, 112, 102, or 103 *et al*, with respect to patentability. Such an admission sets forth a bar and creates a prosecution history estoppel, as per *Festo Corp. v. Shoketsu Kinzoku Kogyo Kabushiki Co.*, 535 U.S. 722, 122 S.Ct. 1831, 1838, 62, *USPQ2d* 1705, 1710 (2002) and further in *Festo III* and *Festo VIII* (see MPEP 2173.02 *supra*). Further, under that doctrine, such admissions also prohibit the use of any arguments related to

subject matter that has been canceled on appeal from a Final Rejection by examiner to either the BPAI or the CAFC. Applicant is warned that any attempt to use such argument must at minimum set forth how it overcomes the presumption of *Festo* as set forth above or the Appeal Brief will be held to be defective. Examiner is presenting the arguments that will be used as the basis in the Examiner's Answer if required, along with the legal underpinnings of such reasoning. If applicant wishes to use a *Graham v. Deere* analysis, examiner will provide a more detailed, itemized breakdown in the Answer. Finally, applicant is put on notice that any After-Final Amendment that does not traverse **all** arguments by examiner will simply not be entered.

Applicant's representative is encouraged to call the examiner to arrange for a telephonic interview to further discuss the details of this case.

***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claims 29-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 29 recites the limitation "the first graphical user interface window" in the second clause after the preamble. There is insufficient antecedent basis for this limitation in the claim.

Claims 30-35 are rejected for not correcting the deficiencies of their parent case.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 7-9, 29, 31, 34-36, 39, and 41-42 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Hanratty in view of Watanabe et al (US 5,701,403)('Watanabe')(eligible under 35 U.S.C. 102(b)).

Claims 7 and 29 are both method claims with some minor variations in language as discussed below. Therefore it is proper to treat them in the same pass. The system / apparatus limitations of claim 39 are simply a further discussion of the requirements of a computer. However, those will be addressed in a separate addendum below. Otherwise, the system simply implements the method(s) of claim(s) 7 and/or 29, and as such simply converts the general-purpose computer of the first clause of claim 39 to become a specific computer

that executes the next recited steps, and as such that is not a patentable distinction.

\*\*The rejection(s) of the parent claim(s) as set forth below are automatically incorporated by reference in the rejection of all dependent claim(s):

As to claim 7,

A computer-implemented method of providing for different arrangements of a plurality of views of a three-dimensional model, the method comprising: ((Hanratty 1:10-35, 3:10-55)(Watanabe abstract, 1:5-20). Preamble only recites an intended use, and is thusly ignored as per *In re Hirao*, since the method steps can stand alone)

-Displaying the plurality of views in a graphical user interface (GUI) window in an arrangement representing a first computer-aided design drawing layout; (Hanratty see Fig. 3; Fig. 1B, multiple 2D surface layouts, 1:10-35, particularly 3:10-55, specifically 3:30-43; 5:49-6:30)(Watanabe Fig. 22(a), where multiple views of one object are shown, and in Figure 22(a) on the left various components are **automatically** transformed to the views on the right, and various objects are applied to each other, where it is clear that the views in the window on the left are automatically transformed to those on the right, based on the user selecting certain transformations, and clearly the relationship of the views with respect to each other has changed. For example, ellipse 201 in the left view of Figure 22(a) is transformed from the head-on view showing only the circle to that of showing it at an angle as intersecting part of element 202, where the circle 203 is orthogonal to the projection plane through the cylinder 202. In



Figure 22(b), the user selects the objects 211 and 212, and transforms are applied to them to generate the views shown on the right panel of Figure 22(b). (See 33:15-35:15) Figure 23 shows a flowchart explaining the relevant steps (See 34:15-35:42). Various views are also shown in Figure 25 (35:44-36:14), and an illustrative flowchart is present in Figures 26(a) – 26(c), where various views including in Figure 26(c) multiple views of the objects from the side and top made via projection are shown, and transformations are specifically set forth in that segment. See 36:15-36:60.)

-Selecting for inclusion in a second drawing layout at least a first and a second view from the plurality of views; and (Hanratty, particularly 3:10-55, specifically 3:30-43; 5:49-6:30 – in 7:5-30, the drawings are processed and in 7:45-55 discusses finding or selecting the plan or main view of the drawings. Fig. 3 clearly illustrates this, with the multiple two-dimensional views being shown on the screen simultaneously. Clearly in 7:5-30 and 8:15-45, all the objects in all views are first correlated with each other, then the main or plan view is selected, with other view(s) then being selected, and the relationships between the components present in the second or subsequent view(s) to the position of said components in the main or plan view being correlated as set forth above. Fig. 3 clearly illustrates this, with the multiple two-dimensional views being shown on the screen simultaneously.)(Watanabe, as set forth in the discussion in the previous clause, teaches selecting multiple views)

-Forming a second drawing layout comprising the selected views in the first layout wherein said second drawing layout is formed by applying a

transformation matrix to views represented in the first layout to automatically reposition the views for display in the second drawing layout wherein, in the second drawing layout, the first view and the second view are shown in a different positions with respect to each other than in the first drawing layout.

(Clearly, as shown in Fig. 3, multiple two-dimensional views shown on the screen simultaneously via software are well known in the art. In 6:10-45, it is taught clearly that the user may organize the views in the view set manually, or the system can do it automatically. This clearly establishes that the user can configure the overall view set one-way or the other, and by moving views around. As stated before, Hanratty clearly teaches that the system can perform that task automatically, and applicant can find the relevant analysis under *In re Venner* as to why automating that step does not cause a significant difference from the prior art, and why the instant claim fails the tests under that case.)(Hanratty further teaches in 23:50-24:15 and 25:17-47 that the system applies transformation matrices to views and rotations) (Watanabe Fig. 22(a), where multiple views of one object are shown, and in Figure 22(a) on the left various components are **automatically** transformed to the views on the right, and various objects are applied to each other, where it is clear that the views in the window on the left are automatically transformed to those on the right, based on the user selecting certain transformations, and clearly the relationship of the views with respect to each other has changed. For example, ellipse 201 in the left view of Figure 22(a) is transformed from the head-on view showing only the circle to that of showing it at an angle as intersecting part of element 202, where the circle 203 is

orthogonal to the projection plane through the cylinder 202. In Figure 22(b), the user selects the objects 211 and 212, and transforms are applied to them to generate the views shown on the right panel of Figure 22(b). (See 33:15-35:15) Figure 23 shows a flowchart explaining the relevant steps (See 34:15-35:42). Various views are also shown in Figure 25 (35:44-36:14), and an illustrative flowchart is present in Figures 26(a) – 26(c), where various views including in Figure 26(c) multiple views of the objects from the side and top made via projection are shown, and transformations are specifically set forth in that segment. See 36:15-36:60.)

Further, as applied above, the Watanabe reference sets forth that the views in Figure 29(a) have 4x4 transformational matrices applied to them to map them into the their new views – 36:60-37:57, and provides a flowchart explaining these limitations in Figure 30, with appropriate explanations provided in 37:58-39:10.

Reference Hanratty clearly teaches most of the limitations – see the rest of the paragraph for details – but does not explicitly teach transforming multiple views automatically in the manner suggested by the instant claim. Clearly, as set forth above, in Fig. 3 Hanratty teaches the display of a plurality of views of a drawing, and that the software will automatically select the plan view as the first view set forth above. Then the user can manually select other desired view(s) or have the software perform that tasking, as set forth above. Clearly, in Fig. 3 various views are shown arranged around the plan view, as the above-cited sections of Hanratty clearly suggest that they would be. Additionally, there is a

1:1 correspondence between Fig. 5 of applicant's drawings and Fig. 3 of Hanratty – same number of views presented, etc.). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Hanratty to allow the user to move the multiple views of the object in one window around, as Hanratty clearly establishes that the views can be presented in multiple windows (6:8-40) or in one window (Fig. 3), but this modification would be implicit.

Reference Watanabe on the other hand clearly suggests and sets forth as specified in the discussion of each clause the automatic positioning of various views and the changing thereof in response to user selection of said views and selection of appropriate transformations to apply to each view and their relationships as specified in the various citations concerning the reference above.

The Watanabe and Hanratty systems are both analogous art as they are directed to CAD systems that are for manipulating three-dimensional views of objects as well as two-dimensional selected views of said objects.

Additionally, to preempt any arguments on this point on appeal, claim 7 clearly states "a GUI window". While it is well-established case law that an indefinite article "a" may be interpreted as one or more (see *Scanner Technologies Corp. v. ICOS Vision Systems Corp.*, 70 USPQ2d 1900 (CA FC 2004)), examiner is only required to find an implementation that contains one window.

However, on a separate issue, there are certain circumstances where this interpretation is not given weight. Examiner believes that in this case, limiting the

indefinite 'a' to mean one window is appropriate, because in claim 29 (which is herein used as an evidence claim), which is a method claim also, there is a reference to "the first GUI window," a recitation that while lacking antecedent basis, is indicative (in examiner's opinion) of applicant's intent to limit both claims to one window, because the claim would not make sense unless it is interpreted in that manner, where the first GUI window of the second clause after the preamble would be "the graphical user interface window" of the third clause. Therefore, examiner has established that it is reasonable to read the claims as requiring (or necessitating) only window, in that the second layout is in fact found within the same window as the first layout was, in the transformed views will then appear within the first window where the first and second views selected by the user were located.

It would have been obvious to combine the system of Hanratty with that of Watanabe because Watanabe provides additional mechanisms for manipulating objects, automatically creating views and intersecting planes, makes generating three-dimensional objects from two-dimensional drawings, and various other advantages as enumerated in 47:48-48:67, which would obviously improve the system of Hanratty.

As to claim 29,

The claim is substantially similar to claim 7, with the only differences as follows: claim 7 is drawn to arranging views, whereas claim 29 is drawing to rearranging views. Since the preamble only summarizes the claim limitations, it is not being given weight (A preamble is generally not accorded any patentable

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weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).).

Therefore, this distinction is meaningless.

The second difference is that claim 29 automatically creates a new drawing layout with the views in proximity to each other, with at least one in a new location on the computer screen. Firstly, claim 7 recites that one of the views is moved in closer proximity to the other. Obviously, the repositioned or moved view has been moved to a new location on the computer screen. Thusly, the only difference is that a new drawing layout is created. This is a trivially obvious variant, as displaying the results of a new drawing process in another window is well known in the art. Further, Hanratty clearly establishes that drawings can be in multiple windows (6:8-40) or in one window (Fig. 3), which means that in light of Fig. 3 and the fact that the views are independent of each other, putting the results in a new window would be obvious, particularly that Hanratty teaches that during automated processing, if the system finds that a TCS does not exist for the section of the solid that it is operating on, the system creates new one (11:65-12:31). This clearly establishes that the software creates new data structures if one does not exist. As such, it would be trivially obvious to open a new window and display the newly repositioned multiple views

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as recited above, and *prima facie* such views would be in new screen locations as set forth above.

Also, Watanabe meets this limitation as per the cited Figures as discussed in the rejection to claim 7 above, wherein see Figures 20-30 and 7:64-8:40 for example, and the rejection to claim 7 is incorporated by reference in its entirety. Finally, as shown in for example Figures 22(a) and 22(b) a previous layout containing multiple views is transformed via matrices into a second layout containing views, but obviously arranged differently (depending on rotations and other transformations applied, as set forth above).

See the discussion contained in claim 7 concerning claim interpretation in the face of indefinite claim language as rejected under 35 U.S.C. 112, second paragraph.

As to claim 39, the additional limitations concern the nature of the computer are met in for example Watanabe Figure 2, where the recited computer is shown, with the graphical user interface 1 ("user interface 1 is embodied by an input device and a graphics display included in the computer"), (drawing) data processing section (e.g. processor) 8 ("...8 is embodied by a CPU and programs included in a computer such as a workstation...")(inherently requires a storage device or memory), and drawing data base 9 (storage means or device). Programs are inherently stored on said storage device as noted above. See Watanabe 13:21-14:14. The rejections to claims 7 and 29 are herein incorporated by reference in their entirety for motivation, combination, and their content.

As to claims 8, 34, and 41,

A method, according to claim 7, further comprising automatically aligning the first view and the second view in accordance with a conventional drafting standard by snapping at least one of the first view and the second view into a position as prescribed by the conventional drafting standard.

Hanratty clearly teaches the use of drafting standards in aligning views in 13:22-14:53, particularly emphasizing 13:35-45 where the positioning of views is said to be specified by the standard, and to be done automatically. This clearly proves that the views in Fig. 3 are automatically aligned and positioned as set forth above. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify it such that any elements of the above mentioned claim that are not present would be, but Examiner believes that all elements as recited above are indeed met by Hanratty, as cited immediately above. Further, existing CAD standards, such as the ANSI ones cited by Hanratty, would clearly be viewed as conventional since they are in fact well established in the industry. The recitation of the second drawing layout is trivial because if such techniques were applied to the first layout, it would be obvious to apply them to the second.

As to claim 34 specifically, the only difference is the use of the word 'conventional' as set forth in claim 8. This difference is trivial, and set forth above in the rejection to claim 8 under both art and under 35 U.S.C. 1.12, second paragraph, is meaningless in this context.

As to claim 9,



A method, according to claim 8, wherein aligning the first view and the second view utilizes at least one transformation matrix for at least one of the first view and the second view.

Reference Hanratty teaches the above limitations, and does explicitly teach a "transformation matrix". Specifically, Hanratty teaches that his invention takes two-dimensional views and creates a three-dimensional object from it (3:10-55), and that 'transforming' the three-dimensional objects by operations such as rotation (23:50-24:40) generates new views of such objects. In any case, the view clearly is referred to as having a matrix applied to it (23:63-24:16, specifically), where the view could obviously be the 'first' or 'second' view referred to in the claim. In any case this limitation is further discussed in the rejection of claims 7, 29, and 39 above, the rejections to which are incorporated by reference. Further, Watanabe also applies transformation matrices during the transformation of the left panels of Figures 22(a) and 22(b) to those on the right as set forth above. Finally, Hanratty aligns, as set forth in the parent rejection to claim 8.

As to claims 35, 36, and 42, Hanratty specifically states (13:20-60, particularly lines 35-42) that positioning of views is specified by an implemented ANSI standard that Hanratty utilizes in his specification and application. Since only the primary reference is utilized, no separate motivation or combination is required and that from the rejection to the parent claim is herein incorporated by reference.

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Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hanratty and Watanabe as applied to claim 9 above, and further in view of Fortenbery et al (US 6,198,487 B1)('Fortenbery').

As to claim 10,

A method, according to claim 9, wherein the transformation matrix for one of the first view and the second view performs a mapping between relative coordinates and an absolute coordinate system.

Reference Hanratty teaches the limitations of this claim implicitly but not expressly, in that multiple two-dimensional views (see Fig. 3) exist, and are mapped to a three-dimensional larger object, as set forth in the rejections to the claims above. This establishes a mapping of coordinates systems, but the translation between relative and absolute coordinates is not explicit. Reference Fortenbery teaches a system for converting two-dimensional views of an object on a computer monitor in a first software application to three-dimensional absolute coordinates in a three-dimensional model, and then the transference of that model to the coordinate system of a second application, such that relative to absolute coordinate transforms occur (12:5-67 teaches that two-dimensional models are converted to "object container coordinates" that are then converted to "a server world coordinate" system)(Fortenbery, 10:36-67 clearly illustrates relative and absolute coordinate sets also as set forth above). Clearly, Fortenbery deals with two-dimensional views of three-dimensional objects, so it is analogous art and is directed to the same problem solving area as the Hanratty reference. Furthermore, as cited above, Hanratty teaches the mapping of two-

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dimensional coordinates to a three-dimensional object, so it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the CAD and view manipulations of Hanratty with the coordinate conversion system of Fortenbery to allow the CAD system to take in objects from other programs and model them, as well as more efficiently process its own views during the view conversion process. Motivation for combination of Hanratty and Watanabe is taken from the rejection to claim 7 above.

Claims 11 and 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hanratty and Watanabe as applied to claim 7 above, and further in view of Fortenbery et al (US 6,198,487 B1)('Fortenbery').

As to claim 11,

A method, according to claim 7, wherein selecting one of the first view and the second view comprises positioning a cursor on the one of the views being selected and clicking a mouse button.

References Hanratty and Watanabe do not explicitly teach this limitation. Reference Fortenbery clearly teaches a computer system with a mouse (element 64 in Fig. 7), and that the system recognizes mouse clicks and selects an active view (20:18-64). Further, the use of a mouse click to select an object is well known in the art and is a fundamental of graphical user interface operating systems, such as that of the Microsoft® Windows™, where said OS is the platform on which the program of Fortenbery runs (3:5-65). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Hanratty and combine the CAD and view

manipulations of Hanratty with the coordinate conversion system of Fortenbery to allow the CAD system to allow the user to have standard functionality found in a GUI OS environment, and further to allow the user to more efficiently manipulate two- and three-dimensional objects and views as set forth in Fortenbery generally.

As to claims 32-33,

A method, according to claim 29, wherein selecting the first view comprises dragging the first view to a new location and dropping the first view at the new location.

As set forth in the above rejection to claim 11, references Hanratty and Watanabe do not expressly teach this limitation. Reference Fortenbery teaches this limitation as an obvious modification; the rejection to claim 11 is herein expressly incorporated by reference. Microsoft® Windows™ operating system, as specified above, has certain well-known and inherent functions.

One of these is so-called 'drag-and-drop' capabilities, where a user can, for example, click on an icon or object in a window (or the desktop) and drag it to another window or location, and after releasing the mouse button, the object will be moved to the new location. Further, reference Hanratty specifies that the views can be presented in multiple windows (6:8-40) or in one window (Fig. 3), which means that in light of Fig. 3 and the fact that the views are independent of each other, while they can be automatically positioned in the main window (see rejection to claim 8). \*\* Examiner is taking Official Notice on the 'drag-and-drop' functionality of Microsoft® Windows™ as specified above. \*\* In light of the above

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facts, therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system of Hanratty and combine the CAD and view manipulations of Hanratty with the coordinate conversion system of Fortenbery to allow the CAD system to allow the user to have standard functionality found in a GUI OS environment, and further to allow the user to more efficiently manipulate two- and three-dimensional objects and views as set forth in Fortenbery generally. Applicant has not addressed this taking of Official Notice, which means that, for purposes of appeal, it cannot be contested. Applicant is reminded of that fact.

As to claims 32 and 33, the only difference in the claim language is whether the first or second view is dragged and dropped to a new location. That variation is a trivially obvious modification, as it would be obvious to allow the user to choose which window or view was being dragged and dropped.

Claims 30, 37, and 40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hanratty and Watanabe as applied to claims 7 and 29 above, and further in view of Berkwald et al (US 6,356,285 B1)('Berkwald').

As to claims 30, 37, and 40,  
A method, according to claim 29, further comprising hiding unselected views.

References Hanratty and Watanabe do not explicitly teach this claim. Reference Berkwald teaches this claim, specifically wherein Berkwald teaches the use of a 'VIEW' menu with various options for hiding files (19:35-60), while it specifically teaches that the user can choose to hide selected or unselected files (19:60-20:6), e.g. the user can select two files or views, and then have the others

be hidden. This technique clearly is applicable to situations where software is showing multiple views, particularly if, as set forth in the rejections to claims 7 and 29, they are in multiple windows. The references are directed to the same problem solving area, as Berkwald *inter alia* specifies that the invention is specifically directing to a system for analyzing and displaying information about characteristic-dependent portions of an information processing system (1:6-15). As such, it would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the multiple views and windows of Hanratty and Watanabe with the window-hiding capabilities of Berkwald as set forth above, and because such window-hiding techniques are well-known in the art. Further, the recitation "the second drawing layout" is unimportant because as set forth previously, given that the method was previously applied to the first drawing layout (e.g. before applicant amended), it would be obvious that such limitations could (and should) be applied to both layouts, which would clearly (a) be a consistent interpretation of the claim language, (b) would be suitable under 'comprising' language, and (c) would be appropriate for internal consistency within the program (e.g. apply the same limitation to all windows or layouts within a program).

Claim 38 is rejected under 35 U.S.C. 103(a) as unpatentable over Hanratty in view of Watanabe as applied to claim 7 above, and further in view of Rosenberg et al (US 6,078,308).

Hanratty and Watanabe do not expressly teach this limitation. However, it is well known in the art that application programs and operating systems like

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Microsoft™ Windows™ have scroll bars for scrolling documents, and Rosenberg is brought in because it is directed to the same problem solving area (that of navigating through a GUI associated with a CAD program), and examiner will not take Official Notice of another fact in a Final Rejection on a new rejection under 35 U.S.C. 103(a), so it is merely presented as evidence (see Rosenberg 15:20-45), and the additional haptic interface capabilities of Rosenberg would allow easier navigation through a CAD program for example (see for example Rosenberg 15:36-16:35), which provides motivation that proves that it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the systems of Hanratty and Watanabe with that of Rosenberg as set forth above.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will

the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric V. Woods whose telephone number is 571-272-7775. The examiner can normally be reached on M-F 7:30-4:30 alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on 571-272-7664. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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August 1, 2005